IVANHOE LETTER OF MAP REVISION

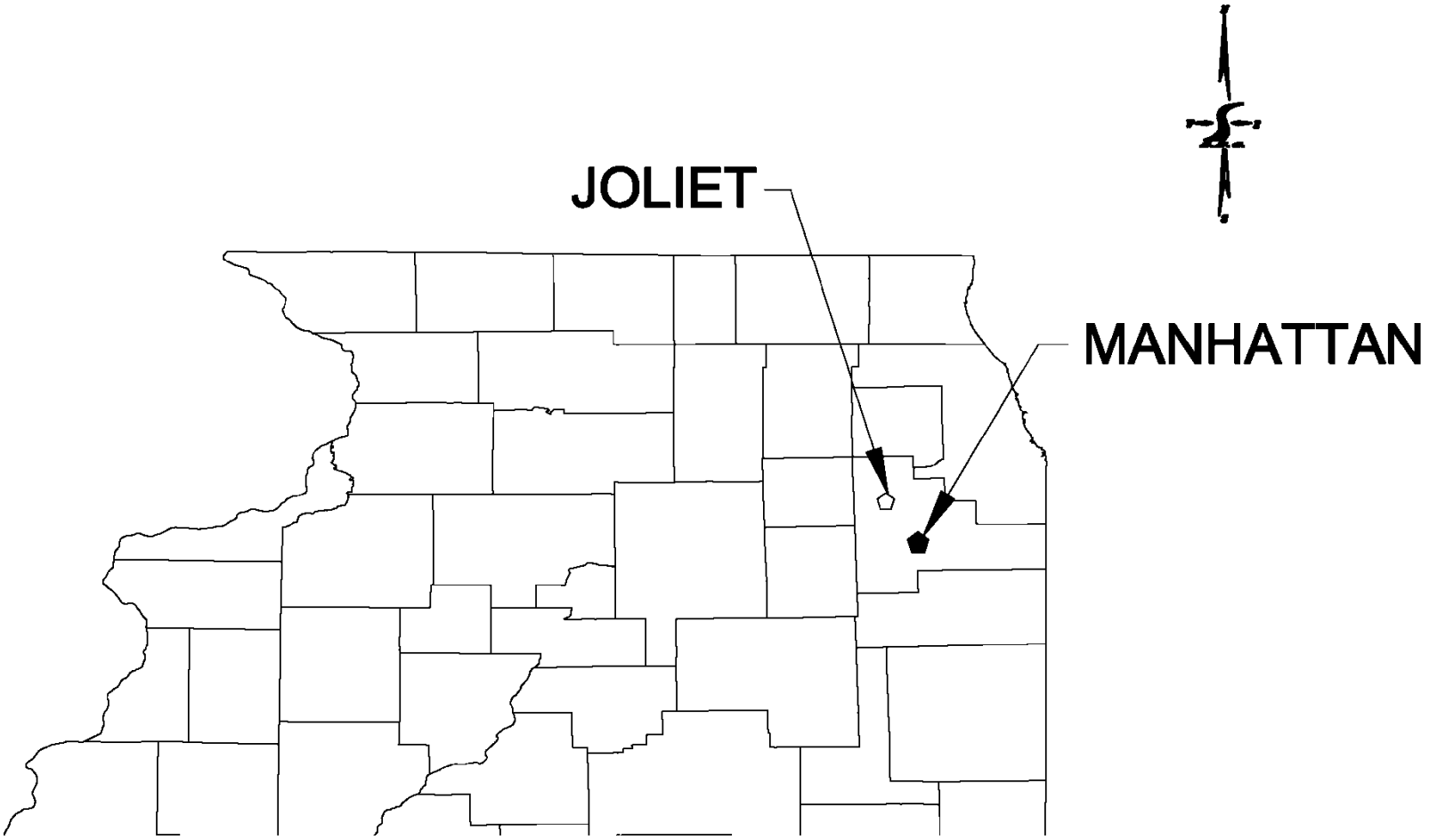
PRESENTED BY
SEC GROUP, INC

RALPH STARK, P.E., CFM

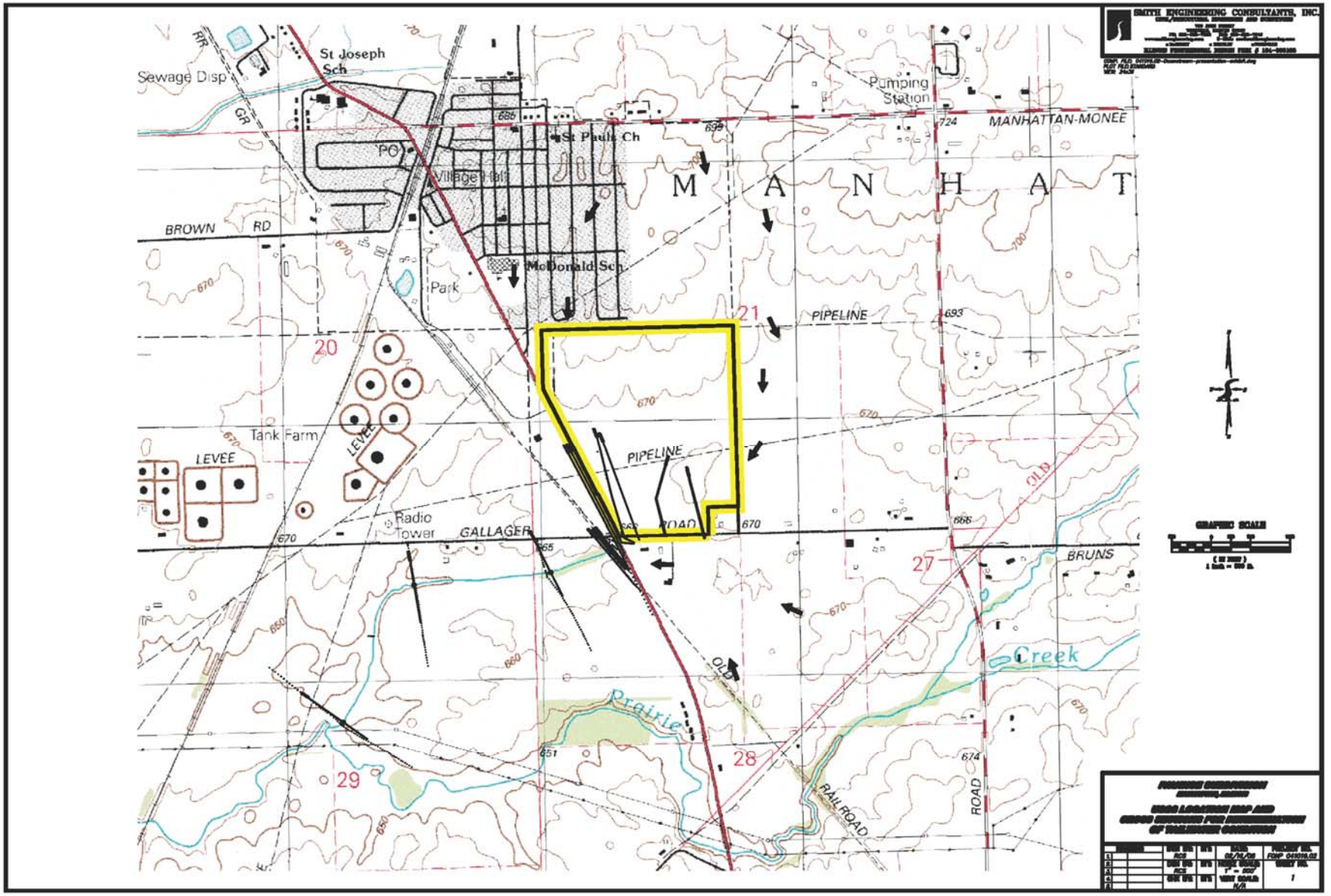
INTRO TO SEC GROUP, INC.

- Established in 1981
- 4 Office Locations:
  - McHenry, Yorkville, New Lenox, Chicago
- 121 Full-Time Employees,
- 47 Licensed Professional Engineers
- Specializes in:
  - Transportation, Structures
  - Municipal, Land Development,
  - Water Resources, Water/Wastewater,
  - Planning, Landscape Architecture
  - Surveying, Construction Engineering

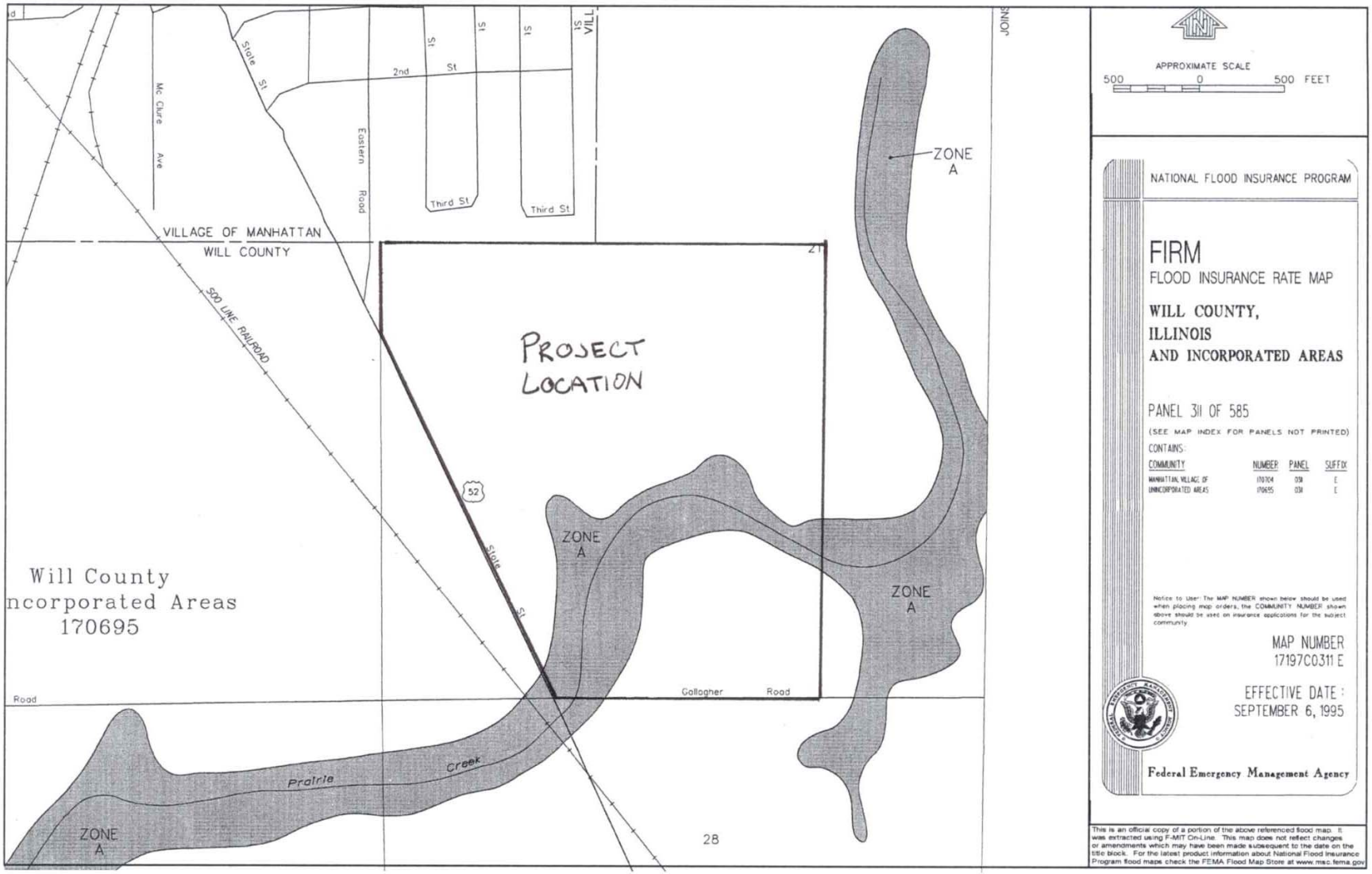
PROJECT LOCATION



PROJECT LOCATION



ORIGINAL FIRM



SMITH ENGINEERING CONSULTANTS, INC.
CIVIL/STRUCTURAL ENGINEERS AND SURVEYORS
759 JOHN STREET
YORKVILLE, ILLINOIS 60560
PH: 630-553-7560 FAX: 630-553-7646
www.smithengineering.com E-MAIL: sec@smithengineering.com
■ McHENRY ■ HUNTLEY ■ YORKVILLE
ILLINOIS PROFESSIONAL DESIGN FIRM # 184-000108

COMP. FILE: 041019.02-LOMR.dwg
PLOT FILE: STANDARD
VIEW: Final Certified

BENCHMARKS:

BENCHMARK #1 – CHISLED SQUARE AT THE NORTHEAST CORNER OF HEADWALL OF BOX CULVERT (RUNS UNDER THE INTERSECTION OF RT. 52 AND BRUNS ROAD) AT SOUTHWEST CORNER OF PROPERTY. ELEVATION 664.60' (NAVD 88)

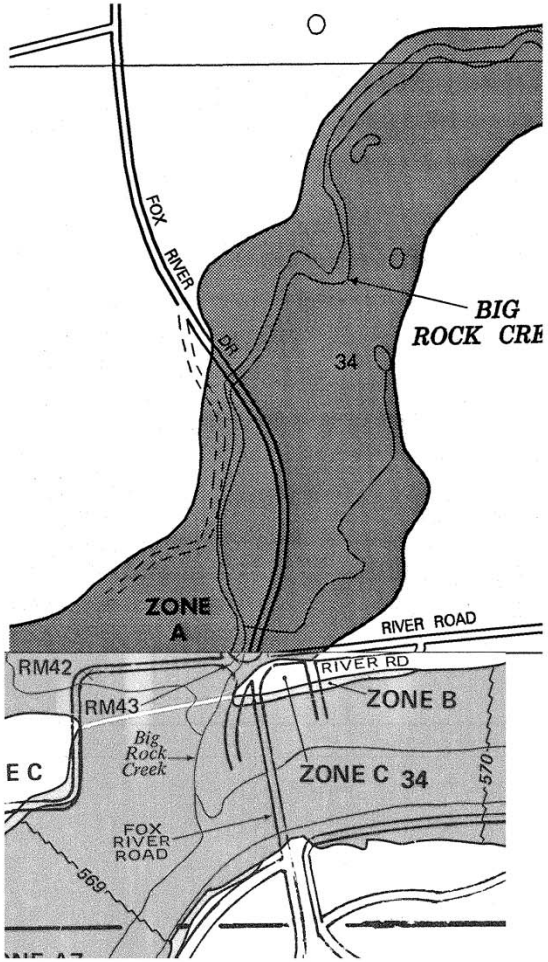
BENCHMARK #2 – RAILROAD SPIKE IN POWERPOLE AT THE SOUTHWEST CORNER OF THE INTERSECTION OF RT. 52 AND BRUNS ROAD. APPROX. 100 FEET WEST OF INTERSECTION AND ON THE SOUTH SIDE OF BRUNS ROAD. ELEVATION 644.8 (NAVD 88).

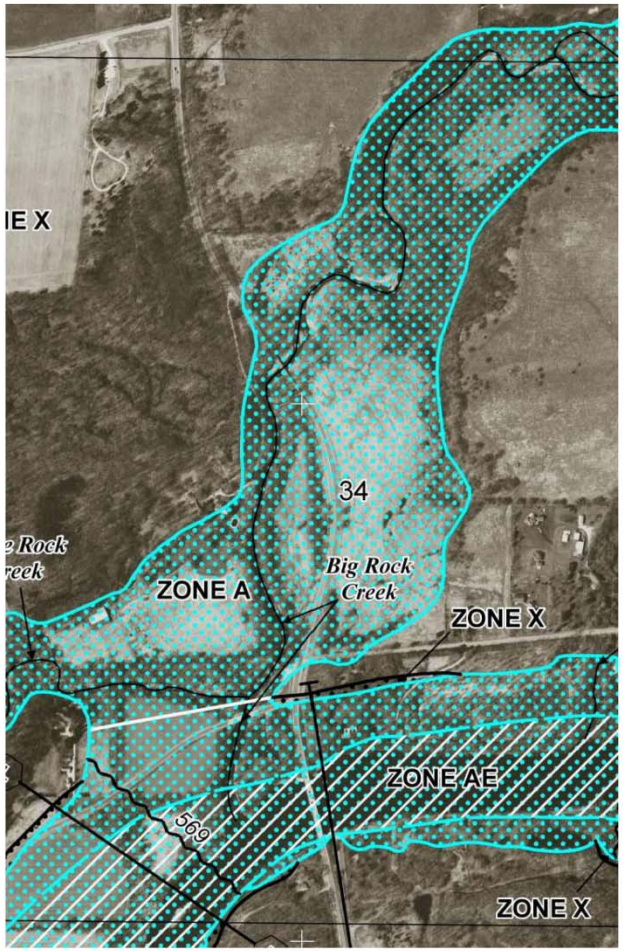
IVANHOE SUBDIVISION
MANHATTAN, ILLINOIS

FINAL CONDITION WORKMAP
CERTIFIED TOPOGRAPHIC MAP

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			RCS		2/13/08	FOXP 041019.02
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			RCS		1" = 100'	
4.			CHK BY:	INT:	VERT SCALE:	1
5.					N/A	

TYPES OF FLOODPLAIN

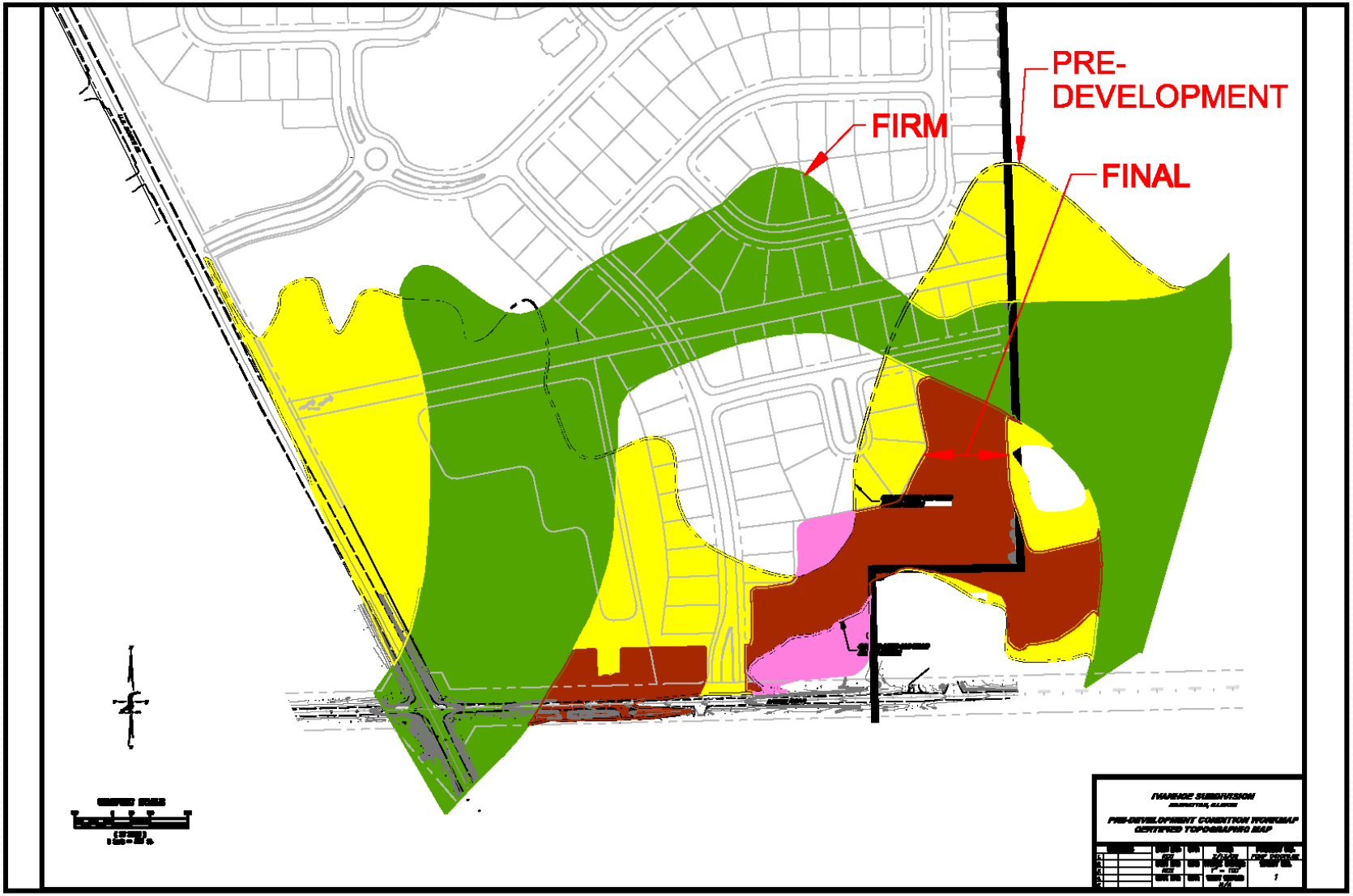




PHASES OF MAP REVISION

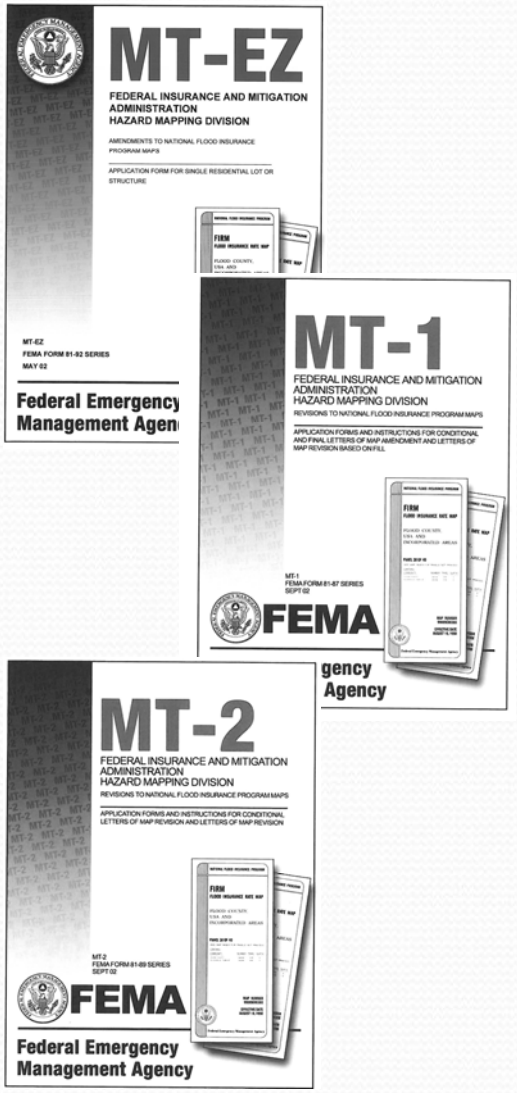
- Effective – Physical Map, Paper Copy of Model
- Duplicate Effective – Recreation of Effective Model,
- Corrected Effective – Modified based upon new survey
- Pre-Project; and
- Post Project

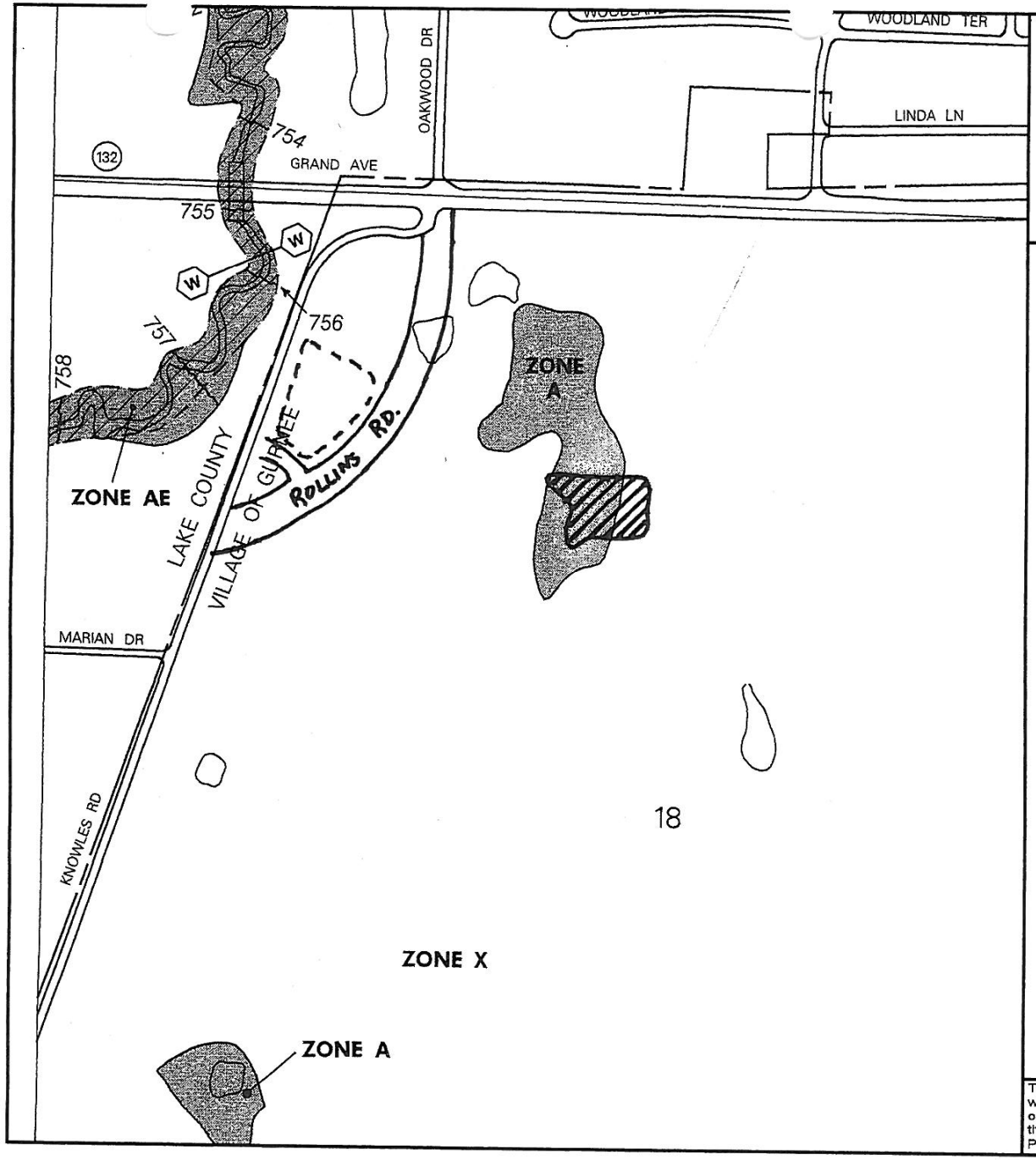
EFFECTIVE, PRE-PROJECT & POST-PROJECT FLOODPLAIN



TYPES OF MAP CHANGES

- LOMA: Corrections to floodplain boundary based upon better topography, no change in BFE (Required Forms MT-EZ, MT-1)
- CLOMR-F/LOMR-F: Changes to floodplain boundary based on fill, no change to BFE (Required Forms MT-1)
- CLOMR/LOMR: Changes to floodplain boundary based upon physical modification to BFE, channel and/or floodway boundary (Required Forms MT-2)





APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

LAKE COUNTY,
ILLINOIS
AND INCORPORATED AREAS

PANEL 63 OF 295

(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GURNEE, VILLAGE OF	170365	0063	F
LAKE COUNTY	170357	0063	F

Notice to User: The MAP NUMBER shown below should be used when placing map orders; the COMMUNITY NUMBER shown above should be used on insurance applications for the subject community.

MAP NUMBER
17097C0063 F

EFFECTIVE DATE:
SEPTEMBER 3, 1997

Federal Emergency Management Agency

MT-2 FORM 1
(OVERVIEW & CONCURRENCE)

- Project located in Village of Manhattan and unincorporated Will County
- Zone A Floodplain
- Basis of Revisions (Physical Change, Improved Methodology)
- Types of Flooding: Riverine
- Structures: Channelization, Bridge/Culvert
- Signed off By Applicant/Client, Village, County, and Engineer

MT-2 FORM 2
(HYDROLOGY & HYDRAULICS) – SECTION A

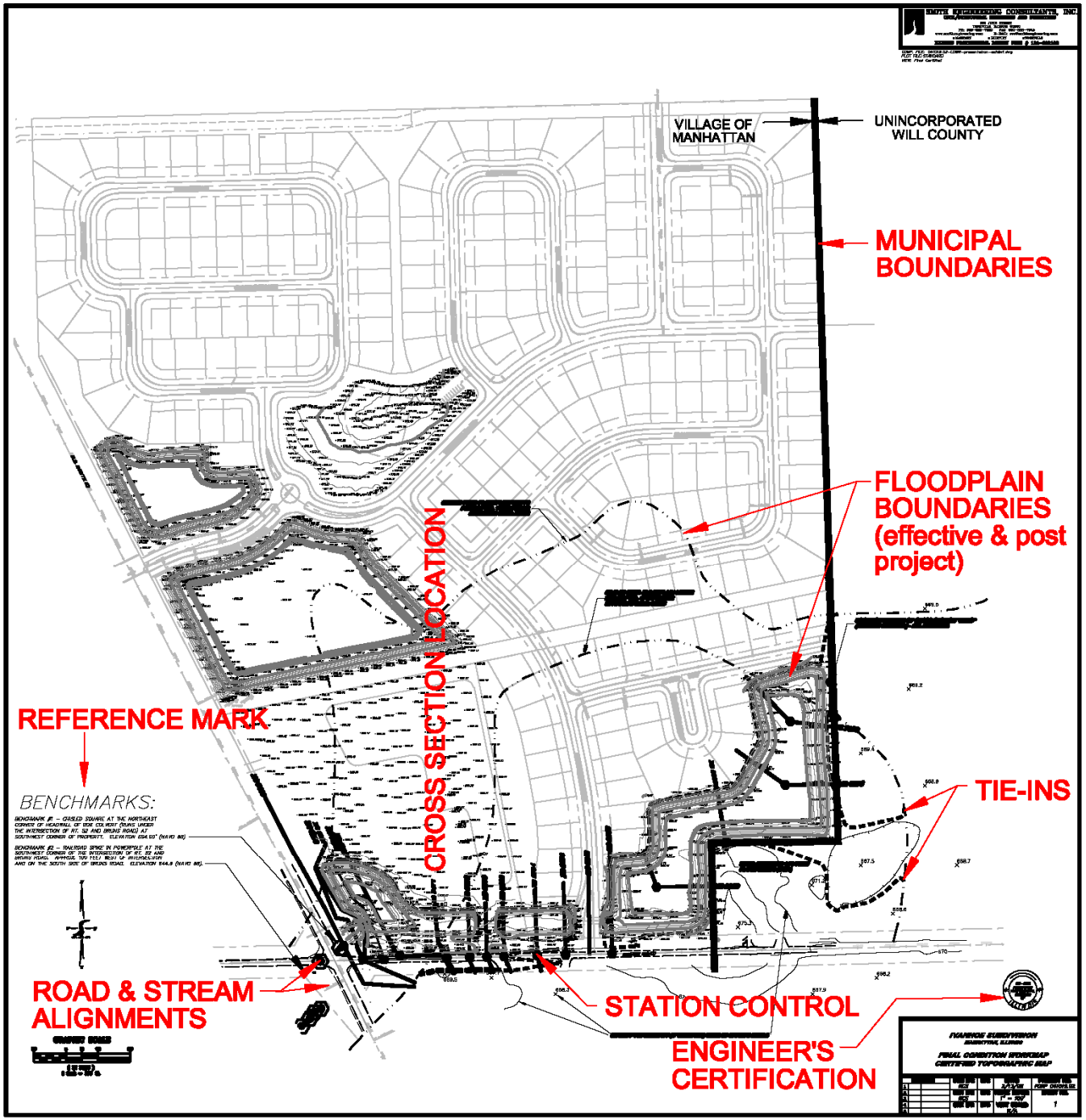
Hydrology

- Reasons for Doing A Hydrologic Model: No Existing Hydrology, Changed Physical Condition (detention basin, new developments, etc.)
- Comparison of Flow: Modified Form to provide Pre and Post Development Flow. (100 year flow reduced from 1423 cfs to 683 cfs)
- Precipitation Model Used: HEC 1 (Watershed = 0.88 sq.mi)
- Review Approval by IDNR-OWR: Not Required because watershed is under 640 Acres (i.e. < 1.0 Sq.Mi)

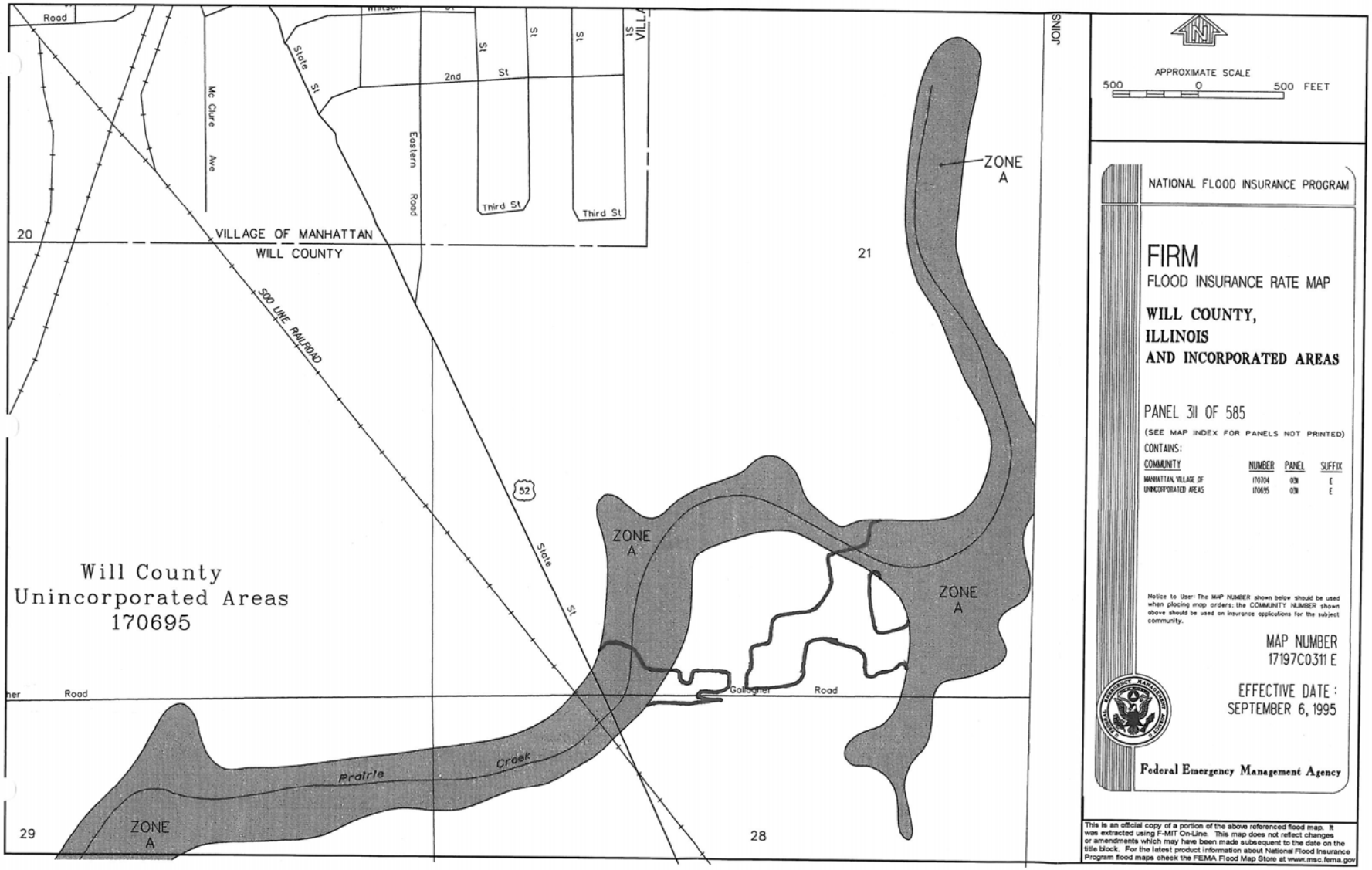
MT-2 FORM 2
(HYDROLOGY & HYDRAULICS) – SECTION B

Hydraulics

- Method Used: HEC-RAS
- Models Submitted: Pre-Project and Post-Project (No Effective or Duplicate Effective Models in Zone A)


VILLAGE OF MANHATTAN
UNINCORPORATED WILL COUNTY
MUNICIPAL BOUNDARIES
FLOODPLAIN BOUNDARIES (effective & post project)
CROSS SECTION LOCATION
REFERENCE MARK
BENCHMARKS:
TIE-INS
ROAD & STREAM ALIGNMENTS
STATION CONTROL
ENGINEER'S CERTIFICATION
FINAL CONDITION WORKMAP
CERTIFIED TOPOGRAPHIC MAP

ANNOTATED FIRM



MT-2 FORM 2 (HYDROLOGY & HYDRAULICS)
- SECTION D, COMMON REGULATORY REQUIREMENTS

Item 1

- No man-made increase in BFE in Floodway. Up to 1.0' increase allowed in Zone A

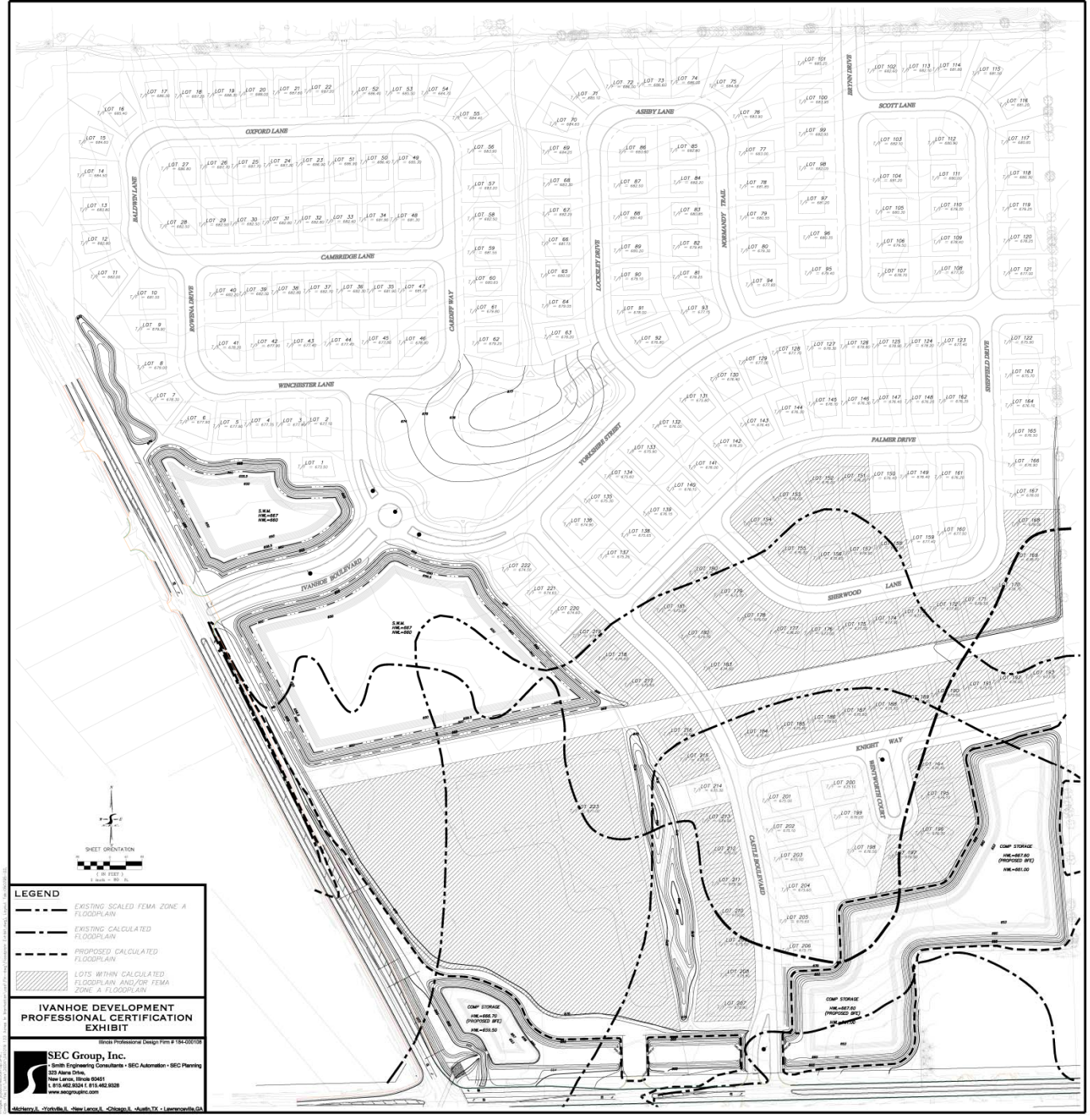
- If BFE increase exceeds above limits, the project must comply with CFR 65.12 as follows:
  - Submit a request for CLOMR
  - Submit Alternative Evaluation
  - Individual legal notice to all impacted property owners
  - Concurrence from other impacted communities
  - Certification of no impact to structures
  - A request for BFE revision and/or floodway revision
  - Adoption of floodplain management ordinance incorporating the increased BFE and/or revised floodway
  - Submit As-Built Certification

MT-2 FORM 2 (HYDROLOGY & HYDRAULICS) - SECTION D, COMMON REGULATORY REQUIREMENTS

Item 2

- Placement of Fill ("Reasonably Safe from Flooding" Certification Required) - Technical Bulletin 10-01

- MT-1 Form 3 for Community Certification of Fill


OXFORD LANE
CAMBRIDGE LANE
WINCHESTER LANE
BALDWIN LANE
BOWDEN DRIVE
CADDY WAY
ASHBY LANE
LOCKSLEY DRIVE
NORMANDY TRAIL
BETINI DRIVE
SCOTT LANE
YORKSHIRE STREET
PALMER DRIVE
SHERWOOD LANE
IVANHOE BOULEVARD
KNIGHT WAY
SHEFFIELD COURT
CASTLE BOULEVARD
S.W.M. HWL=667 HWL=660
S.W.M. HWL=667 HWL=660
COMP STORAGE HWL=666.70 (PROPOSED 9FE) HWL=659.50
COMP STORAGE HWL=667.60 (PROPOSED 9FE) HWL=661.00
COMP STORAGE HWL=667.60 (PROPOSED 9FE) HWL=661.00
SHEET ORIENTATION
(IN FEET)
1 inch = 80 ft.
LEGEND
EXISTING SCALED FEMA ZONE A FLOODPLAIN
EXISTING CALCULATED FLOODPLAIN
PROPOSED CALCULATED FLOODPLAIN
LOTS WITHIN CALCULATED FLOODPLAIN AND/OR FEMA ZONE A FLOODPLAIN
IVANHOE DEVELOPMENT
PROFESSIONAL CERTIFICATION EXHIBIT
Illinois Professional Design Firm # 184-000108
SEC Group, Inc.
• Smith Engineering Consultants • SEC Automation • SEC Planning
323 Alena Drive,
New Lenox, Illinois 60451
t. 815.462.9324 f. 815.462.9328
www.secgroupinc.com
•McHenry,IL •Yorkville,IL •New Lenox,IL •Chicago,IL •Austin,TX • Lawrenceville,GA

Project Name and Address:_____

I, _____certify that the design for the aforementioned development is reasonably safe from flooding in accordance with the guidance provided within FEMA's Technical Bulletin 10-01 related to ensuring that structures are reasonably safe from flooding and in accordance with accepted professional practices.

_____ _____

Signature Date

_____

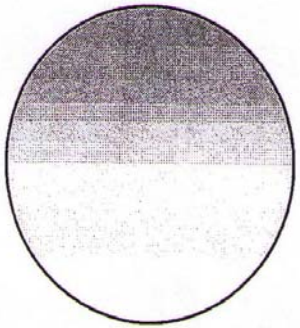
Title

_____ _____

Type of License License Number

Address and Phone

Professional Seal



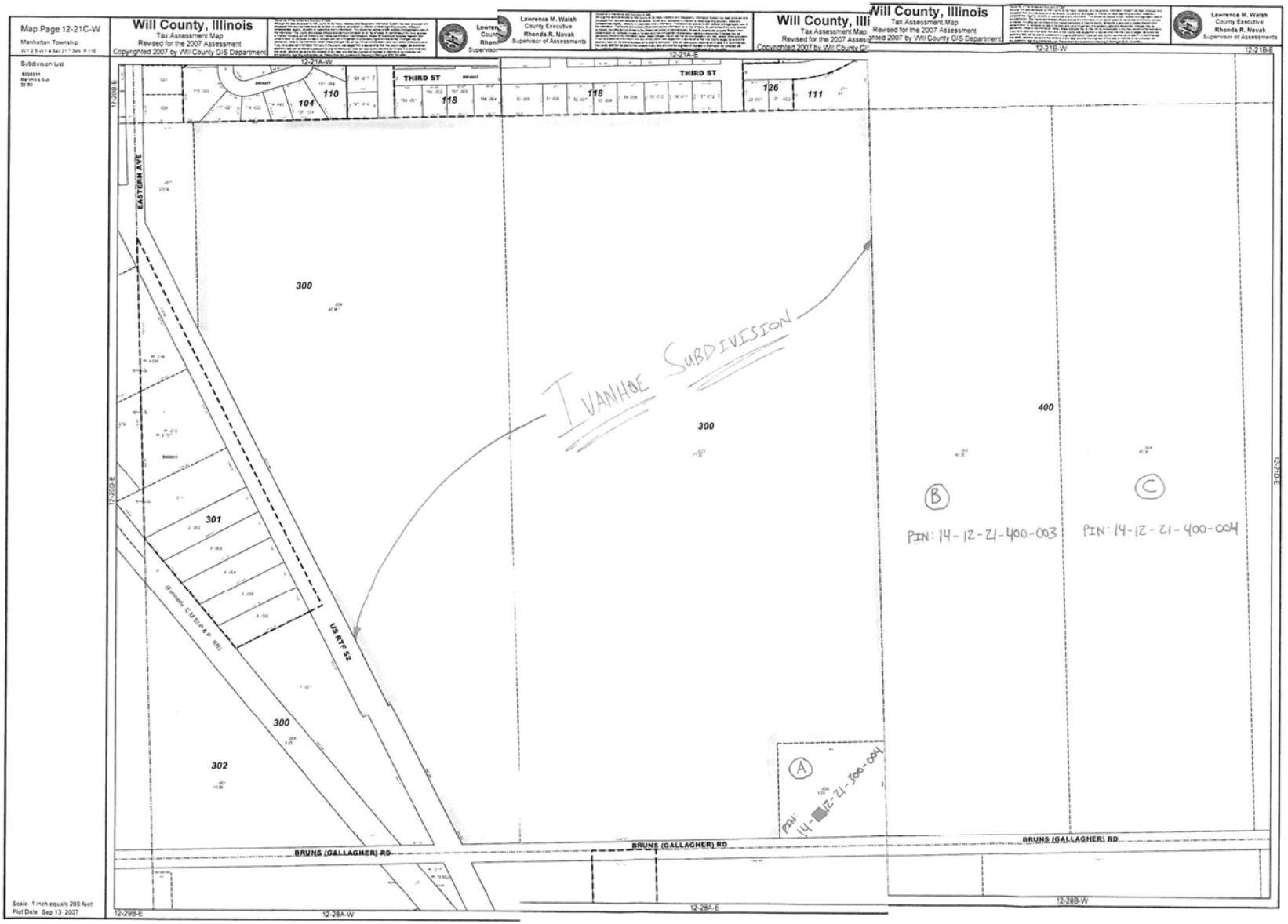
_____

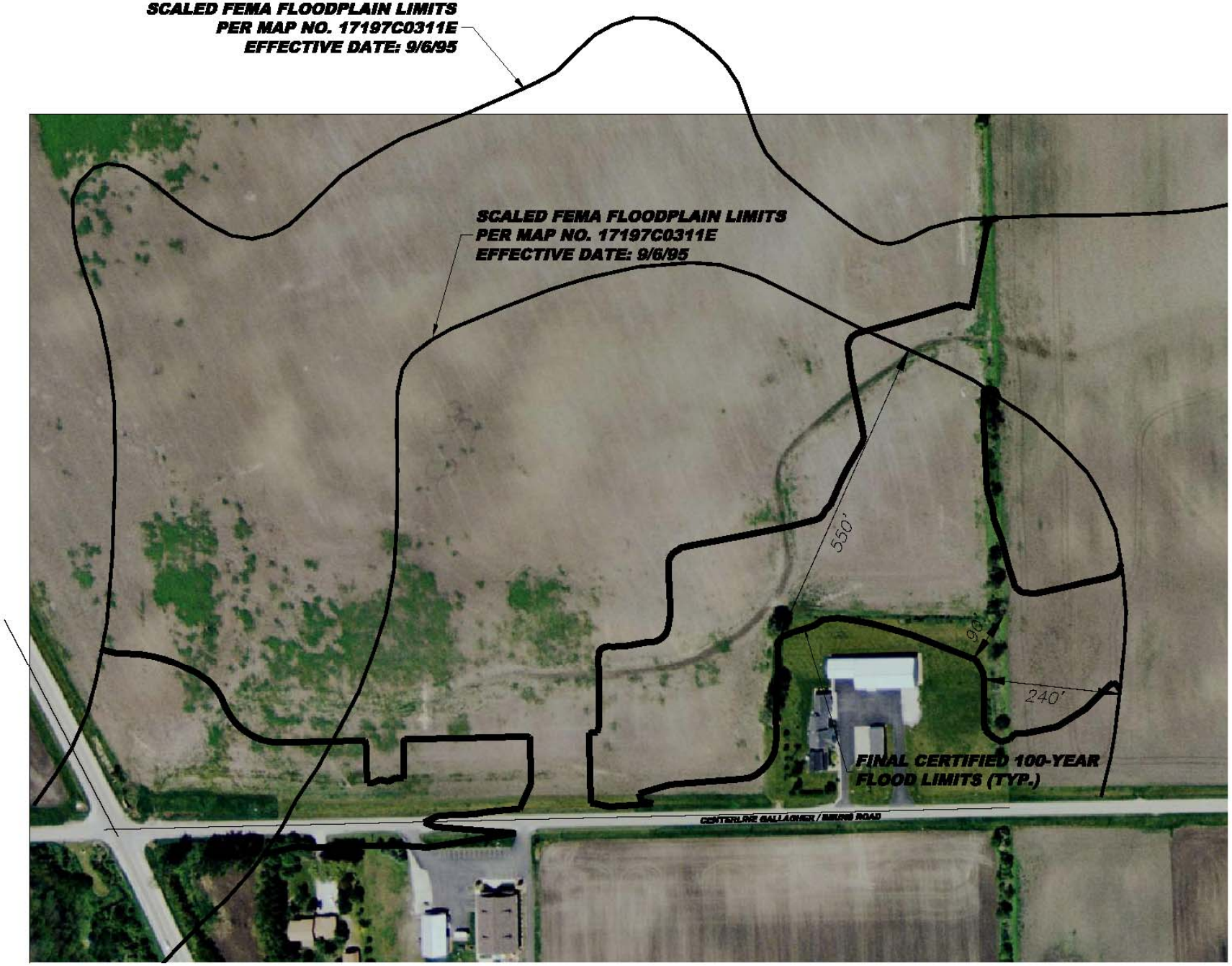
License Expiration Date

Lot Number	BFE	Foundation per SEC plan	Difference between TF and BFE	Minimum floor elevation of 4' deep English or Bi-Level Basement	Minimum floor elevation of standard 8' basement	Minimum floor elevation of 9' basement
Palmer Drive						
151	668.0	676.2	8.2	672.2	668.2	**Raise TF to 677.0 for Minimum Basement of 668.0**
152	668.0	676	8.0	672	668	**Raise TF to 677.0 for Minimum Basement of 668.0**
153	668.0	676	8.0	672	668	**Raise TF to 677.0 for Minimum Basement of 668.0**
154	668.0	676.1	8.1	672.1	668.1	**Raise TF to 677.0 for Minimum Basement of 668.0**
Sherwood Lane						
155	668.0	676.3	8.3	672.3	668.3	**Raise TF to 677.0 for Minimum Basement of 668.0**
156	668.0	676.6	8.6	672.6	668.6	**Raise TF to 677.0 for Minimum Basement of 668.0**
157	668.0	676.9	8.9	672.9	668.9	**Raise TF to 677.0 for Minimum Basement of 668.0**
158	668.0	677.2	9.2	673.2	669.2	668.2
168	668.0	678	10.0	674	670	669
169	668.0	678.7	10.7	674.7	670.7	669.7
170	668.0	678.7	10.7	674.7	670.7	669.7
171	668.0	678.3	10.3	674.3	670.3	669.3
172	668.0	677.6	9.6	673.6	669.6	668.6
173	668.0	677.5	9.5	673.5	669.5	668.5
174	668.0	677.5	9.5	673.5	669.5	668.5
175	668.0	677	9.0	673	669	668
176	668.0	677	9.0	673	669	668
177	668.0	676.2	8.2	672.2	668.2	**Raise TF to 677.0 for Minimum Basement of 668.0**
178	668.0	676	8.0	672	668	**Raise TF to 677.0 for Minimum Basement of 668.0**
179	668.0	675.7	7.7	671.7	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
180	668.0	675.3	7.3	671.3	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
Castle Boulevard (East Side)						
181	668.0	675.2	7.2	671.2	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
182	668.0	674.7	6.7	670.7	**Raise TF to 676.0 for Minimum Basement of 668.0**	**TF Must be raised more than 2' for Basement to be above BFE**
183	668.0	674.5	6.5	670.5	**Raise TF to 676.0 for Minimum Basement of 668.0**	**TF Must be raised more than 2' for Basement to be above BFE**
Knight Way						
184	668.0	675.6	7.6	671.6	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
185	668.0	675.8	7.8	671.8	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
186	668.0	675.6	7.6	671.6	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
187	668.0	675.6	7.6	671.6	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
188	668.0	675.5	7.5	671.5	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
189	668.0	675.8	7.8	671.8	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
190	668.0	675.6	7.6	671.6	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
191	668.0	675.1	7.1	671.1	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
192	668.0	676	8.0	672	668	**Raise TF to 677.0 for Minimum Basement of 668.0**
193	668.0	673.1	5.1	669.1	**TF Must be raised more than 2' for Basement to be above BFE**	**TF Must be raised more than 2' for Basement to be above BFE**
Wentworth Court						
194	668.0	675.85	7.9	671.85	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
195	668.0	676.1	8.1	672.1	668.1	**Raise TF to 677.0 for Minimum Basement of 668.0**
196	668.0	676.3	8.3	672.3	668.3	**Raise TF to 677.0 for Minimum Basement of 668.0**
197	668.0	676.5	8.5	672.5	668.5	**Raise TF to 677.0 for Minimum Basement of 668.0**
Castle Boulevard (West Side)						
206	668.0	675.75	7.8	671.75	**Raise TF to 676.0 for Minimum Basement of 668.0**	**Raise TF to 677.0 for Minimum Basement of 668.0**
207	667.3	675.8	8.5	671.8	667.8	**Raise TF to 676.3 for Minimum Basement of 667.3**
208	667.3	675.9	8.6	671.9	667.9	**Raise TF to 676.3 for Minimum Basement of 667.3**
209	667.3	675.5	8.2	671.5	667.5	**Raise TF to 676.3 for Minimum Basement of 667.3**
210	667.3	675	7.7	671	**Raise TF to 675.3 for Minimum Basement of 667.3**	**Raise TF to 676.3 for Minimum Basement of 667.3**
211	667.3	675.3	8.0	671.3	667.3	**Raise TF to 676.3 for Minimum Basement of 667.3**
212	667.3	675	7.7	671	**Raise TF to 676.3 for Minimum Basement of 667.3**	**Raise TF to 676.3 for Minimum Basement of 667.3**
213	667.3	674.9	7.6	670.9	**Raise TF to 675.3 for Minimum Basement of 667.3**	**Raise TF to 676.3 for Minimum Basement of 667.3**
215	667.3	675.1	7.8	671.1	**Raise TF to 675.3 for Minimum Basement of 667.3**	**Raise TF to 676.3 for Minimum Basement of 667.3**
216	667.3	674	6.7	670	**Raise TF to 675.3 for Minimum Basement of 667.3**	**TF Must be raised more than 2' for Basement to be above BFE**
217	667.0	675.6	8.6	671.6	667.6	**Raise TF to 676.0 for Minimum Basement of 667.0**
218	667.0	674.6	7.6	670.6	**Raise TF to 675.0 for Minimum Basement of 667.0**	**Raise TF to 676.0 for Minimum Basement of 667.0**
219	667.0	674.9	7.9	670.9	**Raise TF to 675.0 for Minimum Basement of 667.0**	**Raise TF to 676.0 for Minimum Basement of 667.0**
Commercial Center						
223	667.0	671	No Basements are proposed			

MT-2 FORM 2 (HYDROLOGY & HYDRAULICS)
- SECTION D, COMMON REGULATORY REQUIREMENTS

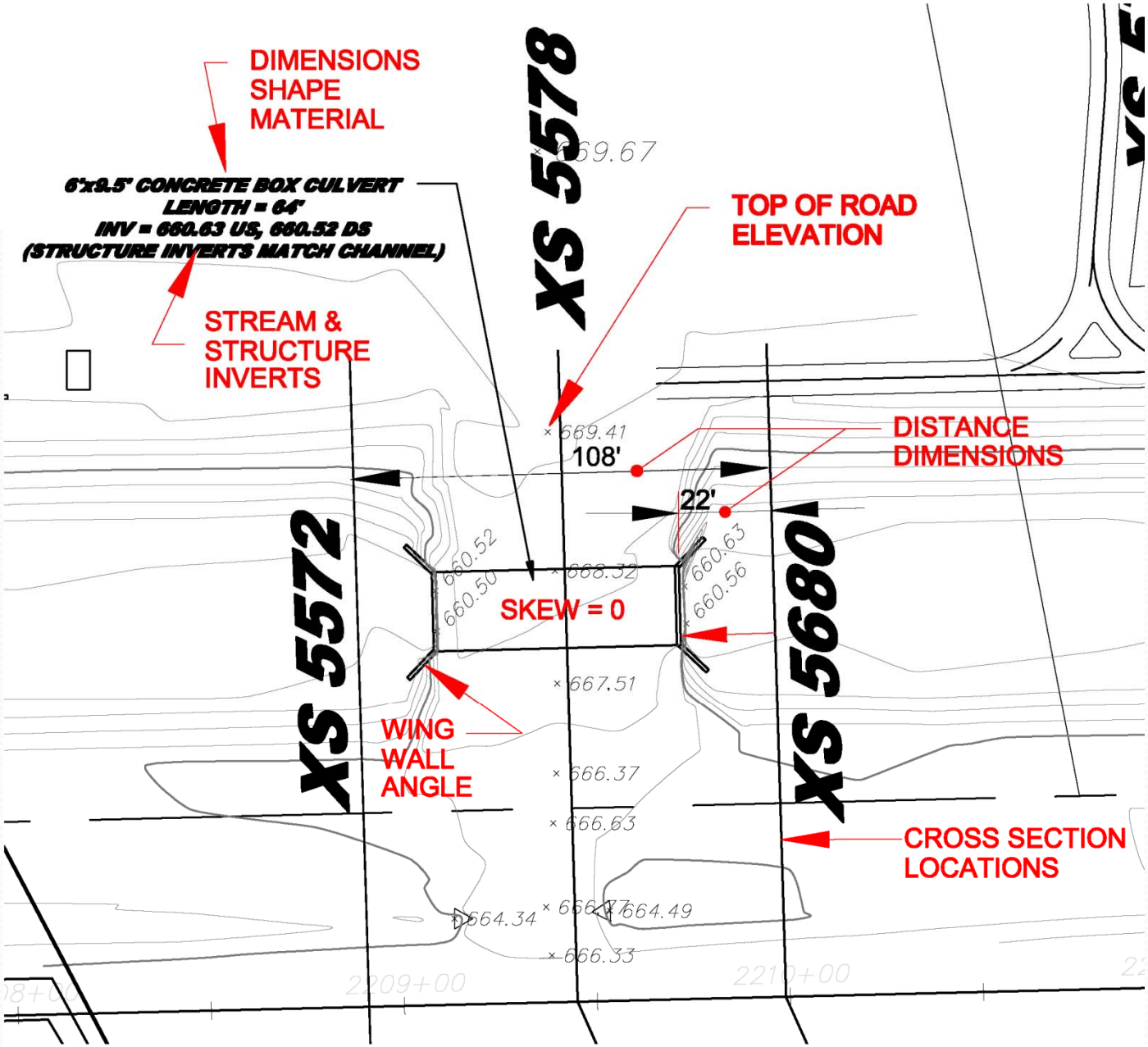
- Item 3: Revisions to floodway: Requires Public Notice
- Item 4: Notification of Affected Property Owners
  - Letters provided to neighbors
  - Notification Vs Signoff (waiting period)


Map Page 12-21C-W
Manhattan Township
Will County, Illinois
Tax Assessment Map
Revised for the 2007 Assessment
Copyrighted 2007 by Will County GIS Department
Lawrence M. Walsh
County Executive
Rhonda R. Novak
Supervisor of Assessments
Subdivision List
Scale: 1 inch equals 200 feet
Plot Date: Sep 13, 2007
THIRD ST
EASTERN AVE
US RTE 52
BRUNS (GALLAGHER) RD
IVANHOE SUBDIVISION
300
301
302
400
104
110
118
126
111
(A)
PIN: 14-12-21-300-004
(B)
PIN: 14-12-21-400-003
(C)
PIN: 14-12-21-400-004


SCALED FEMA FLOODPLAIN LIMITS
PER MAP NO. 17197C0311E
EFFECTIVE DATE: 9/6/95
SCALED FEMA FLOODPLAIN LIMITS
PER MAP NO. 17197C0311E
EFFECTIVE DATE: 9/6/95
550'
90'
240'
FINAL CERTIFIED 100-YEAR
FLOOD LIMITS (TYP.)
CENTERLINE GALLAGHER / BRUNS ROAD

MT-2 FORM 3 - CHANNELIZATION

- List Every Structure
- Channelization


DIMENSIONS
SHAPE
MATERIAL
6'x9.5" CONCRETE BOX CULVERT
LENGTH = 64'
INV = 660.63 US, 660.52 DS
(STRUCTURE INVERTS MATCH CHANNEL)
STREAM &
STRUCTURE
INVERTS
XS 5578
TOP OF ROAD
ELEVATION
669.67
669.41
108'
22'
DISTANCE
DIMENSIONS
XS 5572
660.52
660.50
668.32
660.63
660.56
SKEW = 0
XS 5680
667.51
WING
WALL
ANGLE
666.37
666.63
CROSS SECTION
LOCATIONS
664.34
664.49
666.33
2209+00
2210+00

SUBMITTAL REQUIREMENTS

- Cover Letter
- Send LOMR Package to:

  FEMA Map Coordination Contractor

  3601 Eisenhower Avenue, Suite 600

  Alexandria, VA 22304-6425

- Send fee to:

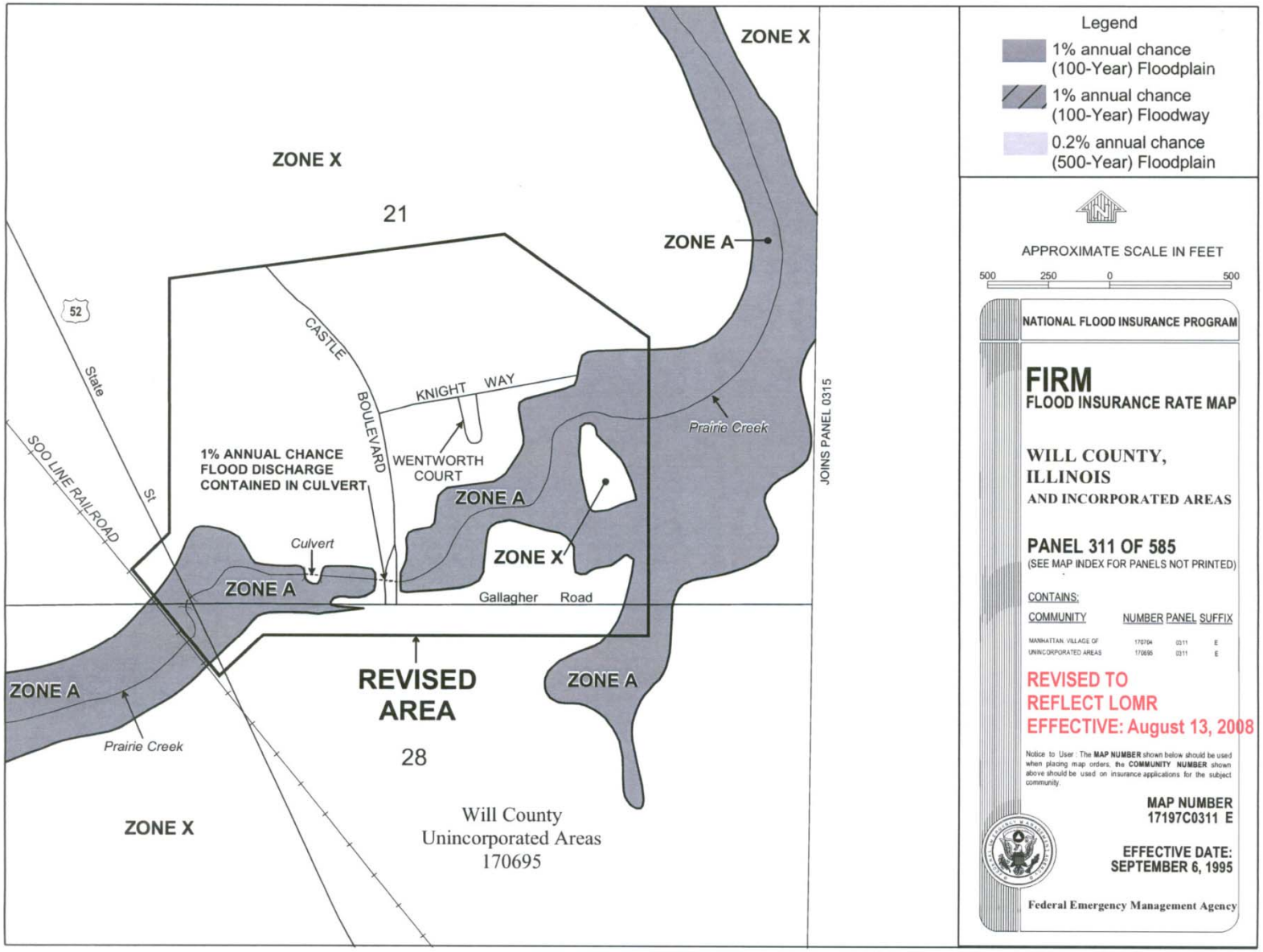
  Federal Emergency Management Agency

  Revisions Fee-Collection System Administrator

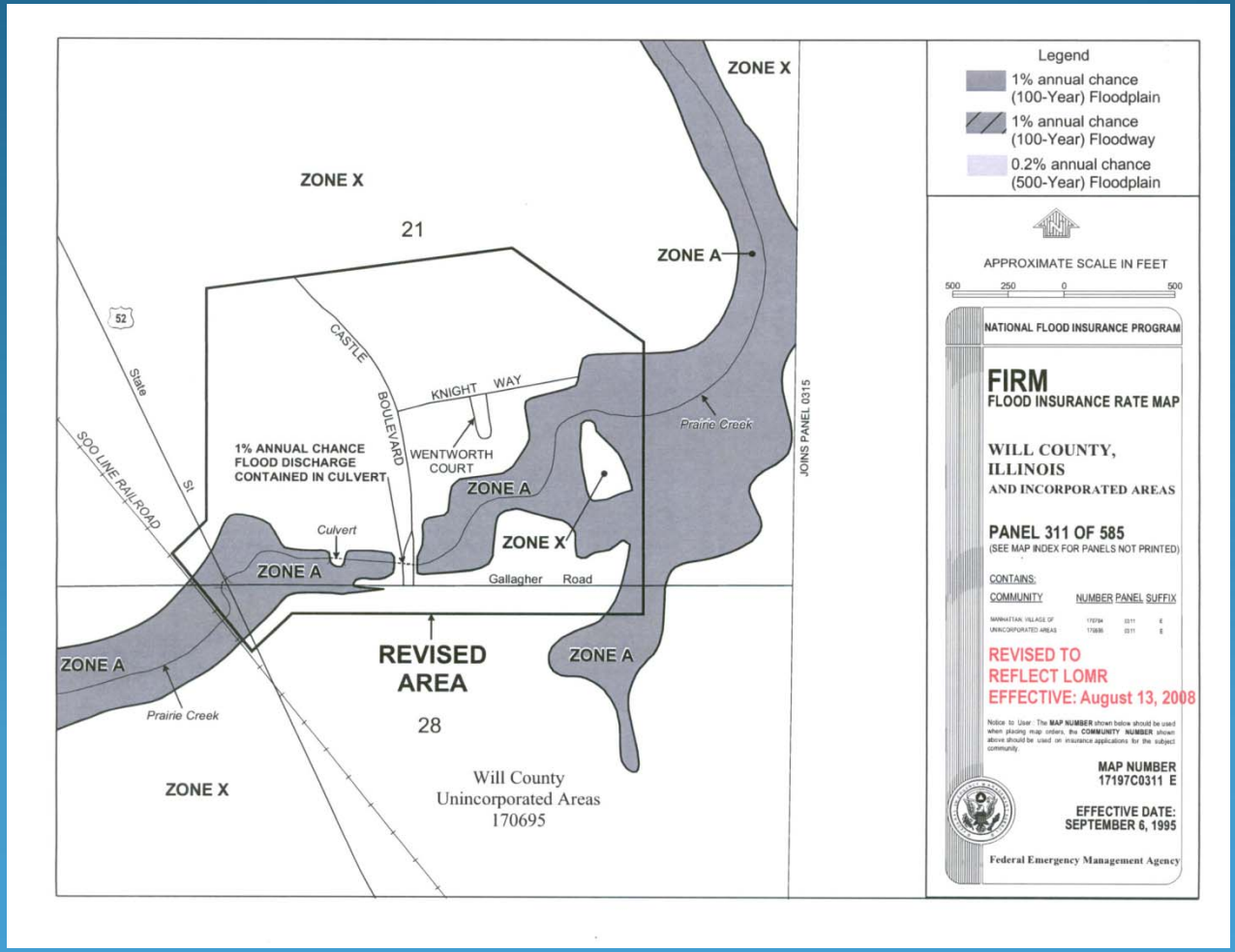
  P.O. Box 22787, Alexandria, VA 22304

  (Include: Payment Information Form, Check made out to “National Flood Insurance Program”, copy of cover letter & MT-2 form 1)

APPROVED LOMR



Questions?


ZONE X
ZONE X
21
ZONE A
52
State St
SOO LINE RAILROAD
CASTLE BOULEVARD
KNIGHT WAY
WENTWORTH COURT
1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CULVERT
Culvert
ZONE A
ZONE X
ZONE A
Gallagher Road
Prairie Creek
JOINS PANEL 0315
ZONE A
REVISED AREA
ZONE A
Prairie Creek
28
ZONE X
Will County
Unincorporated Areas
170695
Legend
1% annual chance (100-Year) Floodplain
1% annual chance (100-Year) Floodway
0.2% annual chance (500-Year) Floodplain
APPROXIMATE SCALE IN FEET
500 250 0 500
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
WILL COUNTY, ILLINOIS
AND INCORPORATED AREAS
PANEL 311 OF 585
(SEE MAP INDEX FOR PANELS NOT PRINTED)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
MANHATTAN, VILLAGE OF 170794 0311 E
UNINCORPORATED AREAS 170936 0311 E
REVISED TO REFLECT LOMR EFFECTIVE: August 13, 2008
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MAP NUMBER
17197C0311 E
EFFECTIVE DATE:
SEPTEMBER 6, 1995
Federal Emergency Management Agency